### From the INTERNATIONAL BUREAU

## PCT

NOTIFICATION CONCERNING TRANSMITTAL OF COPY OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OF THE PATENT COOPERATION TREATY)

(PCT Rule 44bis,1(c))

To:

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RECEIVED

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HANLEY, FLIGHT & ZIMMERMAN, LLC

Date of mailing (day/month/year) 23 March 2006 (23.03.2006)

Applicant's or agent's file reference P17226PCT

International application No. PCT/US2004/029083

International filing date (day/month/year) 08 September 2004 (08.09.2004) Priority date (day/nonth/year) 10 September 2003 (10.09.2003)

IMPORTANT NOTICE

Applicant

INTEL CORPORATION et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Authorized officer

Simin Baharlou

### PATENT COOPERATION TREATY

## **PCT**

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's tile reference P17226PCT	FOR FURTHER ACTION	See item 4 below	
International application No. PCT/US2004/029083	International filing date (day/month/year) 08 September 2004 (08.09.2004)	Priority date (day/month/year) 10 September 2003 (10.09.2003)	
International Patent Classification (8th edition unless older edition indicated) See relevant information In Form PCT/ISA/237			
Applicant INTEL CORPORATION			

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۱.	This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis. I(a).				
2.	This REPORT consists of a total of 8 sheets, including this cover sheet.				
	In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter 1) instead.				
3.	This report contains indications relating to the following items:				
	Box No. 1	Basis of the report			
	Box No. II	Priority			
	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability			
	Box No. IV	Lack of unity of invention			
	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement			
	Box Nu. VI	Certain documents cited			
	Box No. VII	Certain defects in the international application			
	Box No. VIII	Certain observations on the international application			
4.		ommunicate this report to designated Offices in accordance with Rules 44bis.3(e) and 93bis.1 but makes an express request under Article 23(2), before the expiration of 30 months from the priority			

	Date of issuance of this report 13 March 2006 (13.03.2006)	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Simin Baharlou	
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Form PCT/IB/373 (January 2004)		

PATENT COOPERATION TREATY

REC'D 0'3 FEB 2005 INTERNATIONAL SEARCHING AUTHORITY

	14/3
see form PCT/ISA/220	P 19

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

		(day/month/year)	see form PCT/(SA/210 (second sheet)	
Applicant's or agent's file reference see form PCT/ISA/220		FOR FURTHER ACTION See paragraph 2 below		
International application No. PCT/US2004/029083	International filling date 08.09.2004	(day/month/year)	Priority date (day/month/year) 10.09.2003	
International Patent Classification (IPC G06F9/45 Applicant	c) or both national classification	and IPC		
INTEL CORPORATION			3134541	
This opinion contains indi	ications relating to the fo	llowing items:		
⊠ Box No. 1 Basis of th	ne opinion			

Box No. 1

Box No. II Priority

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability Box No. III

☐ Box No. IV

\* From the

To:

Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial

Lack of unity of invention

applicability; citations and explanations supporting such statement

Box No. VI Certain documents cited

M Box No. VII Certain defects in the international application

Box No. VIII Certain observations on the international application

FURTHER ACTION If a demand for international preliminary examination is made, this opinion will usually be considered to be a

written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of malling of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:

European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465

For further details, see notes to Form PCT/ISA/220.

Authorized Officer

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# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2004/029083

	Box I	lo. I Basis of the opinion
1.	With i	egard to the language, this opinion has been established on the basis of the international application in nguage in which it was filed, unless otherwise indicated under this item.
	la	his opinion has been established on the basis of a translation from the original language into the following anguage , which is the language of a translation furnished for the purposes of international search under Rules 12.3 and 23.1(b)).
2.	With neces	regard to any nucleotide and/or amino acid sequence disclosed in the international application and sany to the claimed invention, this opinion has been established on the basis of:
	a. typ	e of material:
		a sequence listing
		table(s) related to the sequence listing
	b. for	mat of material:
		in written format
		in computer readable form
	c. tim	e of filling/furnishing:
		contained in the international application as filed.
		filed together with the international application in computer readable form.
		furnished subsequently to this Authority for the purposes of search.
3		In addition, in the case that more than one version or copy of a sequence listing and/or table relating theret has been filed or furnished, the required statements that the Information in the subsequent or additional sopies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

# WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2004/029083

	Box	No. II	Priority			
1.	. Mark The following document has not been furnished:					
		$\boxtimes$	copy of the earlier ap	plication	whose pri	ority has been claimed (Rule 43bis.1 and 66.7(a)).
			translation of the earl	ier appli	cation who	se priority has been claimed (Rule 43bis.1 and 66.7(b)).
		Conse	quently it has not beer heless been establishe	n possibled on the	e to conside assumpti	ler the validity of the priority claim. This opinion has on that the relevant date is the claimed priority date.
2.		□ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filling date indicated above is considered to be the relevant date.				
3.	. It has not been possible to consider the validity of the priority claim because a copy of the priority documer was not available to the ISA at the time that the search was conducted (Rule 17.1). This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.					
4.	Ade	ditional	observations, if neces	sary:		
_	Po	x No. V	Desconed statem	ant und	er Rule 43	bis.1(a)(i) with regard to novelty, inventive step or
_	inc	dustrial	applicability; citation	ns and e	explanatio	ns supporting such statement
1.	Sta	atement				
	No	velty (N	1)	Yes: No:	Claims Claims	1-30
	Inv	ventive :	step (IS)	Yes: No:	Claims Claims	1-30
	Inc	dustrial	applicability (IA)	Yes: No:	Claims Claims	1-30
2	. Ci	tations	and explanations			
	se	e sepa	rate sheet			
-	Box No. VII Gertain defects in the international application					

The following defects in the form or contents of the international application have been noted:

see separate sheet

### WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2004/029083

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

#### Re Item V.

- 1.1 The following document is referred to in this communication: D1: "Profile Guided Selection of ARM and Thumb Instructions", Arvind Krishnaswamy and Rajiv Gupta, SIGPLAN Notices 37(2), July 2002, XP02309544.
- 1.2 This document deals with the compilation of programs for the ARM processor, which is the field of the current application. It is thus known to the person skilled in the art

### Inventive step

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve and inventive step in the sense of Article 33(3) PCT.
- 2.2 Document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (the references in parentheses applying to this document, the wording of the claim being in *italics*, and the <u>struck out</u> text being non disclosed subject-matter):

A method of executing a non-native software instruction, the method comprising: receiving the non-native software instruction at a device;

generating a first native software instruction from a first instruction set based on the non-native software instruction, the generation of the first native software instruction occurring at the device (page 58, right column, paragraphs 4 and 5); executing the first native software instruction at the device (page 60, left column, paragraph 1):

generating a second native software instruction from a second instruction set based on the non-native software instruction, the generation of the second native software instruction occurring at the device (page 58, right column, paragraphs 4 and 5); and

executing the second native software instruction at the device (page 60, left \_ \_ column, paragraph 1).

equivalent as a function is a set of instructions and that the difference does not cause any non expected technical effect in the method as disclosed in claim 1, and that the person skilled in the art would regard it as a normal procedure to adapt the method disclosed in document D1 that deals with functions to single instructions. It is just a matter of granularity, and moreover the applicant himself considers them equivalent, see the description starting page 7 and the figures, especially figure 3.

- 2.4 The subject-matter of claim 1 therefore differs from this known method in that: receiving the non-native software instruction at a device.
- 2.5 The problem to be solved by the present invention may therefore be regarded as applying an executing method to a device that do not store the application to execute.
- 2.6 The solution proposed in claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT) for the following reason. The feature used to solve the problem is obvious, especially in the context of a mobile device. If the application is not on the device, this application must be transferred to the device either by copying it to its memory though a network, or from a CD-ROM, or by sending it wirelessly in order to be able to execute it.
- 2.7 Dependent claims 2-16 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, the reasons being as follows:
  - the subject-matter of claims 2, 3, 8, 9, 10, 13, 14, 15 and 16 are disclosed in document D1, see the corresponding passages in the search report.
  - concerning claims 4, 5, 6, 7 and 11 the same reasoning as for claim 1 applies. Their subject-matter is only related to conditions of use of the method disclosed in document D1.
  - concerning claim 12, a slight constructional change in the method of claim 1 is defined which comes within the scope of the customary practice followed by persons skilled in the art, namely using compiler options to optimise the produced code, especially as the advantages thus achieved can readily be foreseen. Consequently, the subject-matter of claim 12 also lacks an inventive step.
- 3.1 The same corresponding reasoning applies, mutatis mutandis, to the subject-

matter of the corresponding claims 17-30, which therefore are also considered not inventive.

#### Re Item VII.

- 4.1 The description is not in conformity with the claims as required by Rule 5.1(a)(iii) PCT.
- 4.2 The description is incomplete, the disclosure of the invention as claimed is missing. It must be added to the description.

#### Re Item VIII.

- 5.1 The application does not meet the requirements of Article 6 PCT, because claim 15 and 16 are not clear.
- 5.2 Claim 15 is also not clear, it says "measuring the first native software instruction resulting in a first number of bytes". First it should read "measuring the size of the first native software instruction resulting in a first number of bytes", which applies also to claim 16. The applicant should correct this.